

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1 1. (Currently amended): A regulator circuit comprising:
2 a circuit control node;
3 a circuit output node to which a load can be connected, a voltage at said circuit
4 output node being determined based on a voltage signal at said circuit control node;
5 an amplifier circuit having a first amplifier input and a second amplifier input, and
6 further having an amplifier output, said first amplifier input configured for receiving a reference
7 voltage, said amplifier circuit receiving power from a first voltage source;
8 a source follower circuit having a source follower input node and a source
9 follower output, said amplifier output configured to drive said source follower input node, said
10 source follower output coupled to said circuit control node; ~~and~~
11 a series-connected resistor and transistor circuit coupled to provide a bias at said
12 source follower input node, said amplifier output coupled to a control node of said transistor,
13 said amplifier output thereby driving said source follower via said series-connected resistor and
14 transistor circuit; and
15 a feedback circuit coupled between said circuit output node and said second
16 amplifier input.

1 2. (Currently amended): The circuit of claim 1 ~~further comprising wherein~~
2 said transistor is a component of a current mirror circuit coupled between said amplifier output
3 ~~and said source follower.~~

1 3. (Currently amended): The circuit of claim 2 ~~further comprising a wherein~~
2 said resistor component is coupled between a second voltage source and said source follower
3 input node.

1 4. (Original): The circuit of claim 3 wherein said first voltage source is
2 substantially the same potential as the second voltage source.

1 5. (Original): The circuit of claim 3 wherein said first voltage source is
2 different from the second voltage source.

1 6. (Original): The circuit of claim 1 wherein said source follower circuit
2 comprises a transistor element in series connection with a current source.

1 7. (Original): The circuit of claim 1 wherein said amplifier circuit comprises
2 a single op amp component.

1 8. (Original): The circuit of claim 1 wherein said amplifier circuit comprises
2 two or more op amp components.

1 9. (Original): The circuit of claim 1 wherein said feedback path comprises a
2 pair of resistor components configured as a voltage divider.

1 10. (Currently amended): The circuit of claim 1 wherein a pass element
2 having a control node ~~an~~ can be connected to said circuit control node, wherein an output node of
3 said pass element can be connected to said circuit output node, whereby said pass element can
4 provide a regulated output voltage at its output node to a said load ~~connected thereto~~.

1 11. (Original): The circuit of claim 10 wherein a second voltage source
2 different from said first voltage source can be connected to said load via said pass element,
3 thereby providing a voltage to said load that is independent of said first voltage source.

1 12. (Currently amended): A circuit comprising:
2 a first circuit node;
3 a second circuit node, wherein a voltage level thereat varies in accordance with a
4 voltage level of said first circuit node;
5 an error amplifier having a first amplifier input configured to be coupled to a
6 reference voltage, having a second amplifier input, and having an amplifier output, said error
7 amplifier configured to receive power from a first voltage source;
8 a gain stage comprising a source follower circuit in electrical communication with
9 said amplifier output and with said first circuit node;
10 a series-connected resistor and transistor coupled to provide a bias to said gain
11 stage, said amplifier output coupled to a control node of said transistor; and
12 a feedback path coupled between said second node and said second circuit
13 amplifier input, said feedback path including a pair of resistors configured as a voltage divider.

1 13. (Currently amended): The circuit of claim 12 wherein said gain stage
2 comprises a first transistor component in series with a current source and having a control
3 terminal, said bias being applied to said control terminal, said amplifier output configured to
4 drive thereby driving said control terminal via said series-connected resistor and transistor.

1 14. (Currently amended): The circuit of claim 13 ~~further comprising a~~
2 wherein said resistor component is coupled between a second voltage source and said control
3 terminal.

1 15. (Currently amended): The circuit of claim 13 ~~further comprising wherein~~
2 said transistor is a component in a current mirror ~~coupled between said amplifier output and said~~
3 gain stage.

1 16. (Currently amended): The circuit of claim 15 wherein said current mirror
2 comprises said transistor and a second transistor component ~~and a third transistor component~~,
3 each having a control node connected to said amplifier output, each having a first terminal at
4 ground potential, said second transistor component having a second terminal connected to said
5 first node, said ~~third transistor component~~ having a second terminal connected to said control
6 node of said first transistor component.

17. (Canceled)

1 18. (Original): The circuit of claim 14 wherein said first voltage source and
2 said second voltage source are substantially of equal DC (direct current) voltage levels.

1 19. (Original): The circuit of claim 14 wherein said first voltage source and
2 said second voltage source have different DC voltage levels.

1 20. (Original): The circuit of claim 12 wherein said second circuit node
2 provides a feedback voltage that varies with a voltage across an external load that is coupled
3 thereto.

1 21. (Currently amended): The circuit of claim 12 wherein a pass element
2 having a control node and can be connected to said first circuit node, wherein a output node of
3 said pass element can be connected to said second circuit node, whereby said pass element can
4 provide a regulated output voltage at its output node to a load connected thereto.

1 22. (Original): The circuit of claim 21 wherein a second voltage source
2 different from said first voltage source can be connected to said load via said pass element,
3 thereby providing a voltage to said load that is independent of said first voltage source.

1 23. (Currently amended): A method for regulating an output voltage level of a
2 circuit output node of an electric circuit comprising:
3 detecting said output voltage level;
4 producing an error signal based on a comparison of said output voltage level
5 relative to a reference voltage;
6 controlling a source follower circuit with said error signal to produce a source
7 follower output, including driving a series-connected resistor and transistor pair with said error
8 signal to produce a bias level, and setting a DC operating point of said source follower circuit by
9 applying said bias level to said source follower circuit ; and
10 varying said output voltage level based on said source follower output,
11 wherein a ~~bandwidth at said output node has~~transfer function of said electric
12 circuit is characterized by having a pole at a frequency greater than the unity gain frequency of
13 said electric circuit.

1 24. (Currently amended): The method of claim 23 ~~further comprising setting~~
2 ~~a DC operating point of said source follower circuit via a~~wherein said resistor element is coupled
3 to a first voltage source.

1 25. (Original): The method of claim 24 further comprising controlling a pass
2 circuit with said source follower output to produce said output voltage level.

1 26. (Original): The method of claim 25 wherein controlling said pass circuit
2 with includes applying said source follower output to a control node of said pass circuit, said
3 pass circuit being powered by a second voltage source, wherein a pole at said control node of
4 said pass circuit varies with a pole at said circuit output node.

1 27. (Original): The method of claim 26 wherein said first voltage level is
2 different from said second voltage level.

1 28. (Currently amended): A voltage regulator circuit comprising:
2 first means for detecting ~~said an~~ output voltage level;
3 second means for producing an error signal based on a comparison of said output
4 voltage level relative to a reference voltage, said second means coupled to a first voltage source;
5 and
6 a series-connected resistor and transistor pair configured to produce a bias by
7 controlling said transistor with said error signal; and
8 a source follower circuit ~~in electrical communication with said first means~~biased
9 by said series-connected resistor and transistor pair to produce a source follower output,
10 wherein said output voltage level is varied in response to variances in said source
11 follower output,
12 wherein a ~~bandwidth at said output node has~~ transfer function of said circuit is
13 characterized by having a pole at a frequency greater than the unity gain frequency of said
14 circuit.

1 29. (Original): The circuit of claim 28 wherein said source follower output
2 can be connected to a pass element that is connected to a second voltage source, wherein an
3 output of said pass element constitutes said output voltage.

1 30. (Currently amended): The circuit of claim 28 ~~further comprising a wherein~~
2 said resistor component is connected between said first voltage source and said source follower
3 circuit.